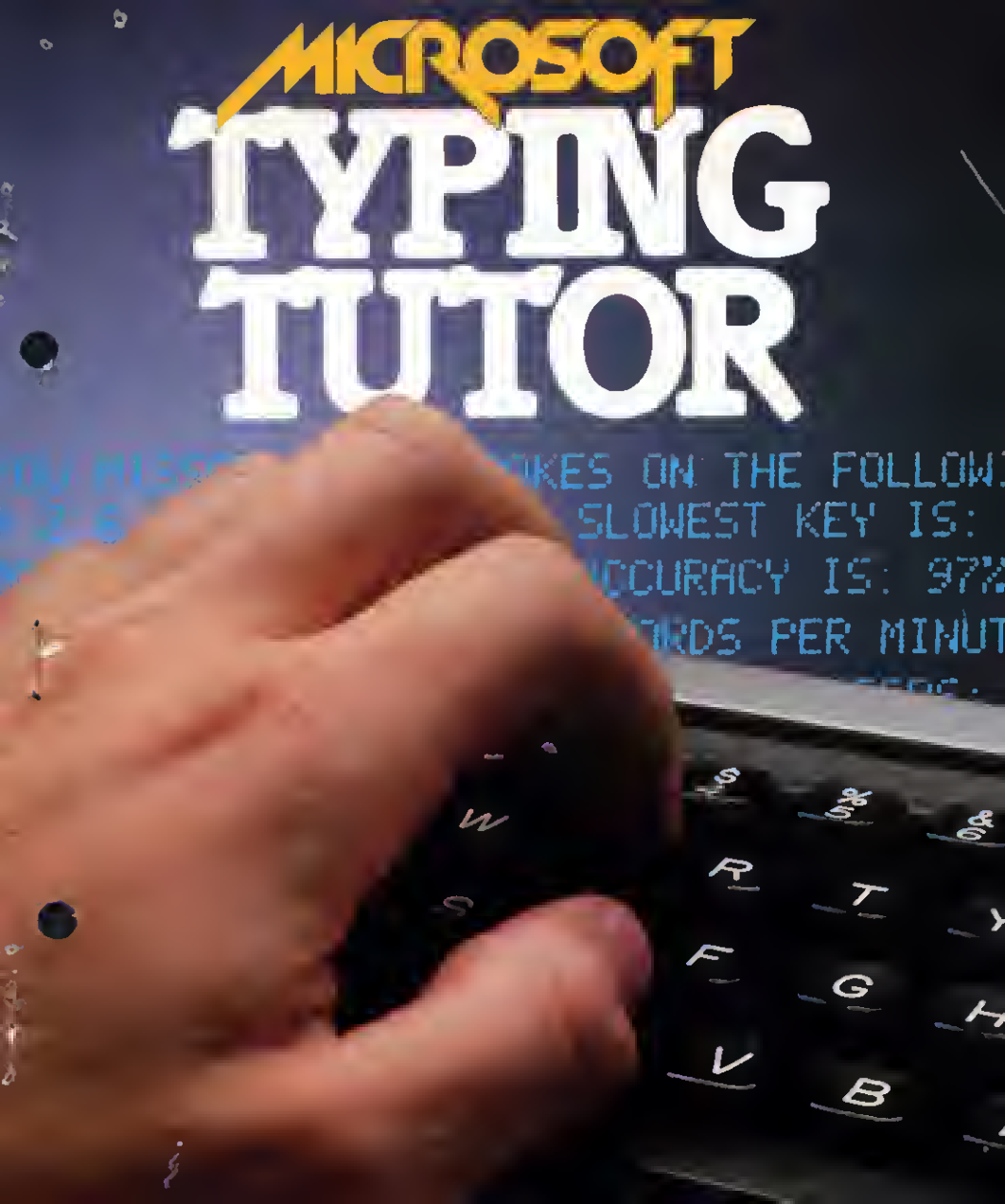
MICROSOFT
TYPING
TUTOR
KES ON THE FOLLOWI
SLOWEST KEY IS:
CCURACY IS: 97%
RDS PER MINUT

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It is against the law to copy Typing Tutor on cassette tape, diskette, or any other medium for any purpose other than personal convenience.

It is against the law to give away or resell copies of Microsoft Typing Tutor. Any unauthorized distribution of this product deprives the authors of their deserved royalties. Microsoft will exercise full legal recourse against violators.

If you have any questions on this copyright, please contact:

Microsoft Consumer Products
10800 Northeast Eighth, Suite 507
Bellevue, WA 98004

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Typing Tutor Explained

Typing Tutor is an Interactive instructional program for use with your Radio Shack TRS-80 computer that will teach you to type and help you build typing speed faster and more efficiently than any other teaching method.

The essential feature that makes Typing Tutor different from a typing class or series of regular lessons is the program's ability to monitor your progress constantly as you are learning and use this information in creating your lessons. Typing Tutor's proprietary TRM—Time Response Monitoring—software monitors the keyboard 20 times per second. TRM is so responsive it can detect even the slight pause that occurs when you look at the keys instead of keeping your eyes on the screen.

Your computer is a natural teacher and Typing Tutor takes full advantage of its capabilities. The tools that you need for Typing Tutor, the typewriter style keyboard and CRT screen, are already available on your computer. The timing and memory abilities of your computer are ideal for measuring and recording speed and accuracy levels. Typing Tutor brings it all together.

The Authors

Microsoft Typing Tutor was written by Dick Ainsworth and Al Baker, and coded by Leah O'Connor, all of The Image Producers, Inc., Northbrook, IL. The Image Producers brings unique creative talents in human communications, education and programming to the personal computer market.

A Word About Microsoft

Microsoft produces high-quality software for today's microprocessors.

Microsoft's BASIC Interpreter, in its several versions, has become the standard high-level programming language used in microcomputers. In addition to Radio Shack TRS-80 Level II BASIC and TRS-80 Disk BASIC, Microsoft has supplied BASIC interpreters for the Commodore PET, the Apple II computer, NCR 7200, Compucolor II, OSI, Pertec Altair, and many others.

Microsoft's careful approach to the development of microprocessor software has allowed the production of large amounts of bug-free, well-designed code in a minimum amount of time. Currently available: BASIC interpreters for the 8080, 6800 and 6502 microprocessors, a BASIC compiler for the 8080, a FORTRAN compiler, assembler, loader and runtime library package for the 8080 and Z80 microprocessors, and an ANS-74 COBOL compiler for the 8080 and Z80. A complete line of software for the new 16 bit microprocessors is presently under development.

Microsoft Consumer Products was founded as a division of Microsoft in the summer of 1979 to provide microcomputer users with high quality system and utility software as well as application software.

Microsoft Typing Tutor is just one of many products being planned for the end-user or consumer market. All of these software packages will be marketed by Microsoft Consumer Products.

Microsoft Consumer Products is dedicated to providing only the best, most reliable microcomputer software.

For more information on Microsoft Consumer Products, please write to:

Microsoft Consumer Products
10800 Northeast Eighth, Suite 507
Bellevue, WA 98004

The Right Hardware

Microsoft Typing Tutor requires a TRS-80 microcomputer with 16K of memory, Level II BASIC and cassette tape player. While Typing Tutor is supplied on cassette tape, it may be copied onto diskette for use with disk-based systems.

Typing Tutor Cassette

The Typing Tutor cassette that comes in your Typing Tutor package is a high-quality recording from Microsoft.

The program is recorded two times on the side of the cassette tape with Typing Tutor printed on it. A length of leader tape precedes each recording. If you listen to the tape, you will hear a steady pilot tone during these leader sections.

Tape Replacement

Your Microsoft Typing Tutor cassette tape is guaranteed to be a faultless recording. If the tape fails to work properly when first opened, return the cassette to the dealer from whom you purchased it or mail it, along with your receipt and an explanatory letter, to Microsoft Consumer Products. Your tape will be replaced at no charge. If for any reason, your tape becomes damaged at any time during your ownership, we will replace it for a nominal $5.00 charge. Mail the cassette with your check to:

Microsoft Consumer Products
10800 Northeast Eighth, Suite 507
Bellevue, WA 98004

How To Load Typing Tutor

Follow these instructions to load Typing Tutor:

1. Turn on your TRS-80 by pressing the Power switches both on the video display and at the back of the cpu. The words MEMORY SIZE? will appear on the screen.

2. Press the [ENTER] key. The computer will respond with:

   ```
   RADIO SHACK LEVEL II BASIC
   READY
   >
   ```

3. Insert the Typing Tutor cassette into your tape recorder. The side labeled "Typing Tutor" should be facing up.

4. Press the REWIND key on your recorder, and allow the tape to rewind fully.

5. Type the word CLOAD on your computer keyboard.

6. Press PLAY on your recorder, then press [ENTER] on your TRS-80 keyboard. Two asterisks (**) will appear in the upper right corner of the TRS-80 screen. The asterisk on the right will begin to blink to signify that Typing Tutor is loading.

7. When the program has finished loading, the computer screen will indicate:

   ```
   READY
   >
   ```

8. Press STOP on the tape recorder. Then press REWIND to rewind the tape fully. Remove the cassette from the recorder.

9. Type the word RUN, then press [ENTER]. The screen will show:

THE IMAGE PRODUCERS PRESENTS
TYPING TUTOR
© 1979 MICROSOFT, INC.

Then it will show:

1. LETTERS
2. NUMBERS
3. SYMBOLS

SELECT KEYS TO LEARN (1-3)

You are now ready to begin your typing lessons.

WARNING:

Before loading Typing Tutor or any other recordings into the TRS-80 microcomputer, we strongly urge you to disconnect the smallest gray plug that is normally inserted into the "MIC" jack of the tape recorder.

If for any reason during the actual reading of a tape the TRS-80 turns off the recorder (via the smallest gray plug) a "spike" may be recorded on the tape, Should this happen, the recording you are entering will be permanently damaged.

Our experience shows that this is most likely to occur when using the Radio Shack CTR-80 recorder, but we recommend that you still disconnect the smallest gray plug no matter what recorder you are using.

What To Do About Loading Problems

The most common loading problem is finding the correct settings for the TONE and VOLUME controls on the tape deck. We suggest that you start with a low VOLUME setting and adjust it up one half level each time you attempt a load. The TONE control is less important, but try changing it also.

Since the sensitivity of individual cassette recorders varies significantly, there is no way to determine specific settings. Once a tape loads, it is a good idea to write down the settings on the cassette label for future reference.

If you still cannot load a tape, try cleaning and demagnetizing the head of your tape recorder. Use a high-quality head cleaner and a head demagnetizer (both can be purchased from most electronics outlets) for these tasks. We don't recommend so-called "cleaner tapes" as they are often abrasive and may damage the head of your recorder.

Other suggestions to try before taking the matter up with your computer dealer:

- Try loading the second recording on your Typing Tutor cassette.
- Try loading the tape with a different cassette recorder.
- Dust and other particles can sometimes prevent a load. To remove particles, run the tape through REWIND and FAST FORWARD a few times.
- Remove the earphone jack and play the tape to listen for the leader tones and digital signals of the files. If you don't hear these sounds, try a different recorder. If you still hear nothing, the tape probably has been erased.

- Ask your Radio Shack dealer about Radio Shack's "cassette modification" fix. This hardware correction should make your Level II BASIC less dependent upon the exact VOLUME settings.

The Preliminaries

Before you actually begin to learn to type, there are a few characteristics unique to typing on a computer that you should take into consideration.

Your TRS-80 computer displays all letters as CAPITALS while a typewriter regularly types in small letters with the [SHIFT] key used to make capital letters. Although you will only use the [SHIFT] key when typing symbols on your TRS-80, you will be able to adapt to using the [SHIFT] key for capital letters on a typewriter easily once you know where the letters are.

The symbols (= + -) are located in different places on different keyboards. The locations vary from computer keyboard to computer keyboard and from typewriter to typewriter. Every time you use a different type of keyboard, you will need to adjust yourself to the symbol locations.

Among typewriter typists, it is common to type a lower case L (l) as the numeral 1 and to sometimes type the capital letter O as the numeral 0. You cannot do this on a computer keyboard.

Since you will be typing from material that is printed on your monitor screen, it is important to be able to see the letters clearly. Make sure there is no glare on the face of the monitor from lights, windows, etc. Also, make sure the computer is at a height that will be comfortable for you as you type. Desk height or slightly lower will probably be most comfortable.

Getting Started

After you load Typing Tutor, the screen will show you a menu:

1. LETTERS
2. NUMBERS
3. SYMBOLS

SELECT KEYS TO LEARN (1-3):

By pressing the appropriate number, you select the letters of the alphabet; the numbers and letters; or the symbols, numbers and letters to learn.

Begin your first session by pressing number one [1] to start with the most basic keys. As you become more advanced or if you are already a competent typist and just want to drill, you may wish to start with [2] or [3]. The computer will respond with ONE MOMENT PLEASE. After you make your choice, the computer screen will read:

1. TYPING TUTOR
2. PRACTICE PARAGRAPH

SELECT (1, 2)

TYPING TUTOR is the instructional part of the program designed to teach you new keys. It is a series of lessons that are continuously adjusted by the computer to help you learn keys you don't know. The program automatically inserts new letters as you gain speed and accuracy. PRACTICE PARAGRAPH generates a paragraph drill that lets you type longer passages, then evaluates your skill.

To begin to learn to type, select TYPING TUTOR by pressing [1].

The Home Keys

Your first four LESSON KEYS are [A], [S], [D] and [F]. Place the fingers of your left hand lightly on these four keys. These keys are called the "home keys" and are where your left hand will normally be while you are typing. The home keys for your right hand are [J], [K], [L] and [;]. Place the fingers of your right hand on these keys.

Practice putting your fingers on the home keys and pressing them lightly. Don't rest the palms of your hands on the front edge of the computer. You won't be able to type very fast unless only your fingertips touch the keyboard.

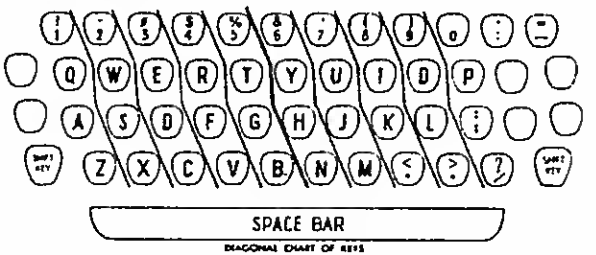

Diagram of fingers on home keys.

Before you start typing, memorize the locations of the [A], [S], [D] and [F] keys then **glue your eyes to the screen.** It is essential that you not look at the keys as you type. You must learn to type by touch in the beginning if you want to eventually develop much typing speed.

Look at the two groups of four letters in the middle of the screen. Type the first four letters as they are indicated, **keeping your eyes on the screen.** Press the space bar with either thumb to move one space to the right. Now type the last four letters.

Press the [ENTER] key using the little finger of your right hand, without moving your hands or lifting your fingers off of the home keys. It may feel awkward at first but it is important to master the ability to press [ENTER] without moving your fingers away from the home keys, so that you don't have to look back at your hands everytime you end a line.

After you press [ENTER], a new lesson will automatically be generated including keys from the previous lesson that you haven't yet mastered plus new keys to replace any that are now on the FAST list.

If you don't see a new lesson you haven't finished typing the lesson. Press the space bar a few times to move the cursor that's below the letters all the way to the right.

Continue typing your next lesson. After the first four letters, press the space bar with either thumb. After you type the second four letters, press the [ENTER] key without moving your hands from the home position. Continue each successive lesson in the same way.

As you type each lesson, the program checks to see if you are typing any of the lesson letters fast enough to indicate that you know where they are. When your reaction time on any letter is equivalent to 20 words per minute, that letter is added to the FAST list and a new key is selected for your next lesson. The TRM software enables the computer to monitor your speed on **each key individually** by checking your typing 20 times per second.

Advancing To New Keys

Your first lessons will include only the home keys, which you type with the appropriate fingers according to the diagram on page 12. As you learn where the home keys are, new keys will be introduced automatically.

Each time a new non-home key is added, it will be introduced in conjunction with the home key that is typed with the same finger. For example, when the key [E] is first introduced, it will be in a drill with the home key [D].

DEDE DEDE

You should type [E] with the same finger you use to type [D] —the middle finger of your left hand.

Non-home keys should be typed by **reaching the appropriate typing finger only.** Do not move your other fingers off of the home keys. By keeping most of your fingers on the home keys at any one time, you will develop a reference for locating all of the keys by touch.

To help you remember the appropriate finger for each key, a diagram is included on page 12. Keep this diagram next to your computer and refer to it if you cannot remember where the next key is. Do not look down at your fingers.

Progress Report

When you have completed ten lessons, Typing Tutor will give you a progress report to let you know how you are doing, such as:

YOUR ACCURACY IS 80 PERCENT AT 27 WORDS PER MINUTE.

This report reflects your average accuracy and speed over the ten lessons.

While both speed and accuracy are important to efficient typing, you shouldn't worry about your speed while you are learning new keys. Concentrate on typing the keys accurately and without looking. Later, once you can type all of the keys without looking, you will be able to build speed fairly rapidly.

Your Options

Following the progress report, the computer will offer you four options:

1. ALLOW SLOWER RESPONSE
2. SAME RESPONSE
3. REQUIRE FASTER RESPONSE
4. PRACTICE PARAGRAPH

SELECT (1-4)

If you select [1], [2] or [3], you will return to TYPING TUTOR, the instruction part of the program. Which of these numbers you select affects the typing speed the computer will require on any key before it will move that key to the FAST list and add a new key.

Press [1], if you want to cover all the keys more quickly. By allowing a 20 percent slower response time, the computer lets letters enter the FAST category more easily and introduces more NEW characters into the lesson to replace them. If you press [1] after your first ten lessons, the computer will start requiring a speed of 16 words per minute rather than 20 in order to move a key to the FAST category. To continue slowing the required rate of response, type [1] after every ten lessons. The program will quickly expand to include all the letters of the alphabet. The keys you are slower on will always find their way back into your lesson.

Press [2], If you want to continue to the next lesson at the same rate of progression. For your first lessons, you should select either this option or the paragraph drill. [2] is the response you will use most often. It signals that all is fine and that you wish to continue your lessons.

Press [3], to build speed faster by requiring a twenty percent faster response time before a letter is shifted from the lesson category to the FAST category. If you press [3] after your first ten lessons, the com-

puter will begin to require a speed of 24 words per minute on a letter before it is considered FAST. The effect is to help you gain speed by giving you additional practice on each key. To continue raising the required rate of response, type [3] after every ten lessons.If you wish to practice the keys you have just been learning rather than return to the lessons, press [4], for a PRACTICE PARAGRAPH.

Practice Paragraph

You can select the PRACTICE PARAGRAPH either by pressing [4] at the end of a group of lessons or by pressing [2] after you choose LETTERS, NUMBERS or SYMBOLS at the beginning of the program. When you select this option, the program builds a practice paragraph using the letters you know and the letters in your current lesson. If you ask for a practice paragraph at the beginning of the program, the program will be made up of all the keys in the category you select.

When the computer has completed generating the paragraph, it will indicate ***BEGIN***.

Begin typing the words as they appear on the screen. Include a space between each word and hit [ENTER] at the end of each line. As you type, your letters will appear on the screen under the computer generated letters. Be sure to keep your eyes on the screen as you type. Your typing should match the computer generated paragraph above it.

If you have made a spacing error and your letters aren't directly underneath the corresponding letters on the computer, each stroke will be counted as an error. When this happens, correct your typing so that you are typing the letter directly above the cursor. When you have finished typing the paragraph, press [ENTER] and the computer will analyze your performance.

Paragraph Analysis

When you press [ENTER] at the end of the PRACTICE PARAGRAPH, the computer screen will say:

PARAGRAPH ANALYSIS:...ONE MOMENT PLEASE

It will then display an analysis of your typing so you can see your progress and make any adjustments you wish in your learning rate. The computer will show your progress in the following way:

YOU MISSED 3 KEYSTROKES ON THE FOLLOWING LETTERS.
K R P

YOU WERE SLOWER ON THESE KEYS.
K P

YOUR ACCURACY IS 97 PERCENT.

YOUR RATE IS 45 WORDS PER MINUTE.

1. TYPING LESSONS
2. ANOTHER PARAGRAPH

SELECT (1, 2)

Your rate of accuracy and your typing speed are the best indicators of your progress. While most typing tests subtract for errors in arriving at your rate in words per minute, Typing Tutor does not, so this words-per-minute figure may be higher than you would get on a standard typing test.

Remember that typing accuracy, not just speed, will help you communicate your ideas quickly and clearly. If you are getting more than three or four errors, you may be pushing too fast. Try another paragraph and see if you can type more carefully. If you are still hav-

ing problems, you may wish to select option three (3. REQUIRE FASTER RESPONSE) in the lesson choices to get more practice on all the keys. (See Your Options, page 15.)

After you receive the analysis, you may select to do another paragraph drill or return to the typing lessons.

The Shift Key

The lessons and paragraph drills for learning the Numbers and the Symbols work the same way as those for learning Letters with one exception. To type some of the symbols, you must use the [SHIFT] key.

To tell which symbols will require use of the [SHIFT] key, look at the keyboard. On some keys you will see more than one character. The lower character on these keys is typed without the [SHIFT] key; the upper characters require use of the [SHIFT] key.

There are two [SHIFT] keys, at the lower right and left hand corners of the keyboard. Both serve the same purpose. When you wish to type a symbol that requires using the [SHIFT] key, for example "#", first press the [SHIFT] key with the little finger of the hand you won't be using to type the symbol. In the case of "#", press the right [SHIFT] key with the little finger of your right hand. While holding the [SHIFT] key down, press the desired key with the appropriate finger. Then release both the [SHIFT] key and the symbol key and continue typing. Repeat this process each time a shift-key character is required.

To Return to the Menu

If at any time during a session, you wish to interrupt a lesson or return to another set of lesson choices, press the [SHIFT] key and [↑] key at the same time.

Pressing [SHIFT] [↑] during any lesson will end the lesson and offer you the choices of adjusting response time or changing to a practice paragraph. Pressing the [SHIFT] [↑] keys again will return to the frame where you select a lesson or a paragraph. Press [SHIFT] [↑] a third time and you will return to the first frame in the program where you can select the type of lesson you prefer—LETTERS, NUMBERS or SYMBOLS.

NOTE: The [SHIFT] [↑] function will not work while a practice paragraph is being generated. You must wait for the entire paragraph to be printed before the [SHIFT] [↑] keys will respond.

What's Inside

If you wish to see how Typing Tutor is teaching you, you can stop the program and look at parts of it. To stop the program, press the [BREAK] key.

Then type:

LIST 7580-7585 and press [ENTER] to see the machine language counting loop that times your response. The machine language subroutine is located at address PS. If you wish to find the address of the relocatable subroutine, type PRINT PS and press [ENTER] .

LIST 9420 and press [RETURN] to see the list of keys in the order they are introduced in Typing Tutor.

LIST 10000-10200 and press [RETURN] to see the words Typing Tutor uses in composing practice paragraphs. The words are arranged in the same order as the letters so that paragraphs matching any lesson can be easily constructed. The program determines which range to use and then selects these words at random to make a unique practice session.

To return to the Typing Tutor program at the place where you stopped it, type CONT and press RETURN.

Play It Again Sam

When you return to Typing Tutor for successive lessons, you will see that it quickly discovers what keys you know and what keys you don't. Just begin with LETTERS, NUMBERS or SYMBOLS and the program will rapidly adjust to your skill level. You can personalize your lessons even faster by adjusting the response time twenty percent in either direction, using the options at the end of every ten lessons. (See Your Options, page 15.)

Typing Tutor is for Everyone

For the programmer. If you would like to enter programs faster and more accurately Typing Tutor is the answer. Special attention is paid to the numbers and symbols that are most often used in programs. With Typing Tutor you can learn to program as fast as you think!

For the student. There is no easier or faster way to learn typing. Improved typing skills lead to better reports and ultimately better grades. Also, Typing Tutor makes an excellent out-of-class practice aid for the student enrolled in a typing course.

For the youngster. Learning to type at an early age can lead to better language and writing skills. Since Typing Tutor is an individualized way of learning, typing skills can be learned at an early age. Typing Tutor can make learning fun!

For the "sometimes" typists. Sitting down and using Typing Tutor for 15 minutes before starting a letter can greatly improve your speed and accuracy. Since Typing Tutor determines your weaknesses instantly, "rusty" spots get cleaned up quickly.

The Secret of Typing Tutor

If you have a computer, YOU should have Typing Tutor.

Your computer is a natural teacher and Typing Tutor takes full advantage of its capabilities. The tools that you need for Typing Tutor, the typewriter style keyboard and CRT screen, are already available on your computer. The timing and memory abilities of your computer are ideal for measuring and recording speed and accuracy levels. Typing Tutor brings it all together.

Learning to type, after all, is a matter of drill. It is development of hand-eye coordination and motor skills. The combination of repetitive motor skill development, low cost monitoring capability and unique computing power is what makes possible TRM™ and Typing Tutor.

Once you've tried Typing Tutor you'll wonder how people ever learned to type without it!!

Typing Tutor's Creators

Typing Tutor wos produced by The Imoge Producers, Inc., Chicogo, III. Dick Ainsworth designed ond developed Typing Tutor. Al Boker implemented Typing Tutor onto the TRS-80 ond Apple II. The Imoge Producers bring unique creotive tolents in humon communicotions, educotion ond progromming to the personol computer morket.

According to Dick Ainsworth, Typing Tutor octuolly works by progromming your mind ond your fingers to type. It is in effect o computer progrom thot programs people. Time Response Monitoring (TRM™) wos conceived of ond developed by Dick Ainsworth. Typing Tutor is o unique ond excellent opplicotion of TRM.™

System Requirements

Typing Tutor for the Apple requires 16k of memory ond Apple BASIC. Typing Tutor for the TRS-80 requires 16k of memory ond Level II BASIC.

Each package includes:

Cossette tope, monuol and suggested lesson plons.

Where to Buy Typing Tutor

Microsoft Consumer Products are sold by computer retoilers notion-wide. Ask your locol deoler for o demo of Typing Tutor. If they don't have Microsoft Typing Tutor or ony of the other fine Microsoft Consumer Products, osk them to become o deoler. For the nome of the deoler neorest you, coll Microsoft Consumer Products. If you don't hove o locol deoler, you con order direct from Microsoft Consumer Products. We occept VISA ond Moster Chorge cords.

For the TRS-80, order **CATALOG NUMBER 1102**
For the Apple II, order **CATALOG NUMBER 2102**

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